

# NGUYEN Quang-Duy



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## Education

- 2017 – 2020 **PhD in Computer Science**  
École Doctorale des Sciences Pour l'Ingénieur, University Clermont-Auvergne, France  
UR TSCF, MathNUM département, INRAE (Irstea), Clermont-Ferrand, France
- 2014 – 2015 **Master 2 in Networks and Communicating Systems**  
University Claude Bernard Lyon I, France  
*Note : 15.31/20.0 - Rank : 1/60*
- 2013 – 2014 **Master 1 in Computer Science**  
Institute Francophone for Information Technology (IFI), Hanoi, Vietnam  
*Note : 14.20/20.00*
- 2007 – 2012 **Engineer of Information Technology in Computer Engineering**  
Hanoi University of Science and Technology, Vietnam  
*Note : 14.96/20.00*

## Experience

- 10/2020 – Present **Postdoc**  
LTCI laboratory, Télécom-Paris, Palaiseau, France  
*Project : OPC-UA PubSub for Caméléon*  
*Keywords : Industrie 4.0, IIoT, OPC-UA, PubSub, Embedded System, Zephyr OS, C*
- 01/2017 – 07/2020 **PhD Student**  
UR TSCF, MathNUM département, INRAE  
*Project : ConnecSens, AgroTechnoPôle*  
*Keywords : Agriculture, IoT, Ontology, Reasoning, Decision Support, OWL, SWRL, Python*
- 08/2016 – 10/2016 **Research Engineer**  
Programmation, Networks and Systems team, LaBRI laboratory, Bordeaux, France  
*Project : Le Palais de la Mémoire*  
*Keywords : Sounds, Method of Loci, Distributed Algorithms, Beacons, BLE, Android*
- 04/2015 – 07/2016 **Master 2 Intern / Research Engineer**  
Networks team, ICube laboratory, Strasbourg, France  
*Project : FIT/IoT-lab*  
*Keywords : Multihoming, Mobility, Contiki, TelosB, Python, C/C++*
- 01/2013 – 07/2013 **Master 1 Intern**  
Institute Francophone for Information Technology  
*Keywords : Participative Detection, Modeling, Android, GAMA Platform, GAML*
- 05/2012 – 11/2012 **Android Developer**  
Fruity Solution company, Hanoi  
*Keywords : Android, Java, JSON, XML*
- 09/2011 – 04/2012 **Engineering Intern**  
Computer Engineering laboratory, Hanoi University of Science and Technology  
*Keywords : NFC, Nokia, Qtcreator, QML*

## Publications\*

- [CI.3] **Quang-Duy Nguyen**, Catherine Roussey, Patrick Bellot, Jean-Pierre Chanet, *"Stack of Services for Context-Aware Systems : An Internet-Of-Things System Design Approach"*, IEEE RIVF 2021, 06/2021
- [T.1] **Quang-Duy Nguyen**, *"Interoperability and Upgradability Improvement for Context-Aware Systems in Agriculture 4.0"*, PhD thesis, University Clermont-Auvergne, 07/2020
- [JI.2] Julian Eduardo Plazas, Sandro Bimonte, Christophe de Vault, Michel Schneider, **Quang-Duy Nguyen**, Jean-Pierre Chanet, Hongling Shi, Kun Mean Hou and Juan Carlos Corrales, *"A Conceptual Data Model and its Automatic Implementation for IoT-Based BI Applications : UML Profile and MDA Approach"*, IEEE Internet of Things Journal, 2020
- [CF.2] **Quang-Duy Nguyen**, Catherine Roussey, Maria Poveda-Villalón, Christophe de Vault, Jean-Pierre Chanet and Camille Noûs, *"CASO et IRRIG deux ontologies pour le développement de systèmes contextuels : cas d'usage sur l'automatisation de l'irrigation"*, IC 2020, 07/2020.
- [JI.1] **Quang-Duy Nguyen**, Catherine Roussey, Maria Poveda-Villalón, Christophe de Vault and Jean-Pierre Chanet, *"Development Experience of a Context-Aware System for Smart Irrigation using CASO and IRRIG ontologies"*, Special Issue "Semantic Technologies Applied to Agriculture", MDPI Applied Science, 2020.
- [CI.2] Maria Poveda-Villalón, **Quang-Duy Nguyen**, Catherine Roussey, Christophe de Vault and Jean-Pierre Chanet, *"Ontological Requirement Specification for Smart Irrigation Systems : A SOSA/SSN and SAREF Comparison"*, ISWC 2018, 10/2018.
- [CF.1] Maria Poveda-Villalón, **Quang-Duy Nguyen**, Catherine Roussey, Christophe de Vault and Jean-Pierre Chanet, *"Besoins ontologiques d'un système d'irrigation intelligent : Comparaison entre SSN et SAREF"*, IC 2018, 07/2018.
- [CI.1] **Quang-Duy Nguyen**, Julien Montavont, Nicolas Montavont and Thomas Noël, *"RPL Border Router Redundancy in the Internet of Things"*, Adhoc-Now 2016, 07/2016.

## Research Skills

Project Management	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
System Implementation	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Scientific Writing	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Presentation	■ ■ ■ ■ ■ ■ ■ ■ ■ ■

## Linguistic

French	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
English	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Vietnamese	■ ■ ■ ■ ■ ■ ■ ■ ■ ■

## Technical Skills

Development Process	Mini-Waterfall, LOT, Agile
System	Linux, Zephyr, Contiki, Android
Network Protocol	TCP/IP, OPC UA PubSub, RPL
Ontology	SOSA/SSN, CASO
Tool	Protégé, GIT, Latex, Wireshark

## Programming

C/C++	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Java	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Python	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Assembly	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Shell script	■ ■ ■ ■ ■ ■ ■ ■ ■ ■

## References

- **Prof. Patrick BELLOT**, Director of CCN team, LCTI laboratory, Télécom-Paris  
Project manager of the project "OPC-UA PubSub for Caméléon"  
✉ patrick.bellot@telecom-paris.fr
- **Dr. Jean-Pierre CHANET**, Director of UR TSCF, MathNUM departement, INRAE  
Director of the thesis "Interoperability and Upgradability Improvement for Context-Aware Systems in Agriculture 4.0"  
✉ jean-pierre.chanet@inrae.fr
- **Dr. María POVEDA-VILLALÓN**, Assistant Professor at Universidad Politécnica de Madrid, Spain  
Visiting researcher from Ontology Engineering Group for the project ConnecSens  
✉ mpoveda@fi.upm.es